

INTRODUCTION TO THE MIFID II TECHNICAL CHANGES: NEW ORDER FIELDS FOR OPTIQ® OEG CASH

Scope and audience: the purpose of this technical note is to provide general information about the MiFID II technical changes on **Optiq® Order Entry Gateway (OEG) Cash**. More specifically, this document aims to describe the MiFID II technical changes with regards to new fields in order entry messages and familiarise developers with how to implement these changes for the respective order entry interfaces. A separate note is published related to the technical changes for MiFID II new order fields for UTP Derivatives. For additional information regarding the Euronext’s MiFID II programme, please consult the dedicated web page [here](#).

SUMMARY

Euronext will introduce new order fields in the order entry messages. This meets, amongst others, the requirements under the delegated act “supplementing Regulation (EU) No 600/2014 of the European Parliament and of the Council with regard to regulatory technical standards for the maintenance of relevant data relating to orders in financial instruments” issued by ESMA which requires trading venues to be able to supply regulators with a wide range of order-related data.

These new fields will be mandatory or conditional based upon client type, method of investment decision making and type of instrument and will be introduced in private order entry messages in Optiq OEG for Cash Markets. This document provides an overview of the implementation guidelines and should be read in conjunction with the [Optiq OEG client specifications](#) for the complete guidelines, rules and conditions for populating the new fields in private order entry messages, as well as the types of checks that would be done on this data.

PROCESS DESCRIPTION

A range of new short code fields is being added in all incoming application order entry messages (including the LP related quote and command messages). The new fields will be mandatory or conditional based upon client type, method of investment decision making and type of instrument. Euronext will conduct checks for the new fields upon order entry to validate that mandatory and conditional fields are provided, in the format specified. Euronext will reject an order with an error message if mandatory and conditional fields have not been filled as required.

Euronext will not check the presence of the data pre-registered with Euronext before the order messages are submitted, or reject an order if the algo, trader or client short code is unknown (i.e. had not been declared) to Euronext ahead of trading. Euronext will instead deploy a web-based tool for secure management of the mapping between the short codes in order entry messages, and the associated long codes that will be used for reporting towards the regulators. The mapping between short codes and long codes needs to be sent, at the latest, by end of business after the trading session.

To provide flexibility in use of short codes, **clients are required to generate their own short codes**. This is a change from what was identified in v1.0 of the Optiq OEG specifications, which stated that the short codes would be provided to the clients by Euronext. Customers using ISV algos will use the codes provided by the ISV, using negative ranges, in both order entry and in the dedicated web-based tool.

More information on the mapping of short codes and long codes is provided in separate documentation.

MIFID II NEW ORDER FIELD DEFINITIONS, RULES AND MESSAGE IMPACTS – SBE PROTOCOL

The following table summarises the new fields to be added to the order entry interfaces and the respective rules for MiFID II requirements in SBE protocol:

Field name	Format	Length (in bytes)	Description	Possible values in BIN	Required with MiFID II
ClientIdentificationShortCode	Numerical ID	4	Short Code used to identify the client of the member or participant of the trading venue. In case there is DEA, the code of the DEA user shall be used.	Numerical between -2^{31} and $2^{31}-1$. Reserved values: "1" to indicate value of AGGR "2" to indicate value of PNAL	Conditional field. Mandatory if Account Type is Client or in case there is a DEA
ExecutionWithinFirmShortCode	Numerical ID	4	MiFID II short code, Execution within firm, identifier of the trader or algorithm responsible for the execution making.	Numerical between $-2^{31}+1$ and $2^{31}-1$.	Mandatory
InvestmentDecisionWFirmShortCode	Numerical ID	4	MiFID II short code, Investment decision within firm, identifier of the trader or algorithm responsible for the investment decision.	Numerical between -2^{31} and $2^{31}-1$.	Conditional field. Mandatory if Account Type is Liquidity Provider, Related Party or House, OR in case in the field MIFID Indicators position 1 (InvestmentAlgoIndicator) is set to "1: Algorithm involved". Optional otherwise.
NonExecutingBrokerShortCode	Numerical ID	4	MiFID II short code, Non-executing broker, identifier of the non-executing broker	Numerical between -2^{31} and $2^{31}-1$.	Optional
TradingCapacity	Enumerated value	1	MiFID II field that indicates whether the order submission results from trading as matched principal, on own account or as any other capacity.	'1' Dealing on own account '2' Matched principal '3' Any other capacity	Mandatory
MiFIDIndicators	Bitmap	1	Field used as instruction for order handling. Values specified, in list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions.	'0' DEA Indicator '1' Investment AlgoIndicator '2' Execution AlgoIndicator '3' Commodity DerivativeIndicator '4' Future use 1 '5' Future use 2 '6' Future use 3 '7' Future use 4	Mandatory

The following table summarizes the implementation of the new fields for the SBE Order Entry messages in Optiq Cash:

SBE msg	Msg routing Client ↔ OEG	Fields → Msg usage	ClientIdentificationShortCode	InvestmentDecisionWFirmShortCode	ExecutionWithInFirmShortCode	NonExecutingBrokerShortCode	TradingCapacity	MiFIDIndicators
New Order (01)	→	Used by the clients to create a new order	Yes	Yes	Yes	Yes	Yes	Yes
Cancel and Replace (06)	→	Used to modify active orders in the order book	Yes	No	Yes	No	No	Yes
Quotes (08)	→	Used by W&C Liquidity Providers (LP) to send several quotes (bid and ask orders) on different instruments in one unique message	Yes	Yes	Yes	Yes	Yes	Yes
Quote Request (10)	→	Used by the clients to indicate that they have interest in the specified instrument (For Future Use)	Yes	No	Yes	No	No	No
Cancel Request (12)	→	Used to request the cancellation of the entire remaining quantity of an active order in the order book	Yes	No	Yes	No	No	No
Mass Cancel (13)	→	Used to request the cancellation of the entire remaining quantity of all active orders matching the specified criteria(s)	Yes	No	Yes	No	No	No
Open Order Request (15)	→	Used by the clients to request details of the target order (Order ID)	Yes	No	Yes	No	No	No
Extended Response (16)	←	Sent by the matching engine to provide to clients all the details of an active order. Response only to OpenOrderRequest (15) and OwnershipRequest (18)	Yes	Yes	Yes	Yes	Yes	Yes

EURONEXT MIFID II TECHNICAL NOTE – CASH

Ownership Request (18)	→	Used by the clients to change the ownership of an active order from one OE Session to another OE Session belonging to the same Firm	Yes	No	Yes	No	No	No
Collar Breach Confirmation (20)	→	Used by a client who wants to confirm the submission of the order previously rejected for dynamic collar breach	Yes	No	Yes	No	No	No
Price Input (28)	→	Used by the clients to inject prices into the matching engine, disseminate price in Market Data and update the reference price of an instrument	Yes	No	Yes	No	No	No
Liquidity Provider Command (32)	→	Message is used by a W&C Liquidity Provider	Yes	No	Yes	No	No	No
User Notification (39)	←	Used to notify clients if they have been suspended/ killed or if their suspension/kill has been cleared	Yes	No	Yes	No	No	No

Please refer to Optiq OEG SBE client specifications for a complete description of the message impacts

MIFID II NEW ORDER FIELD DEFINITIONS, RULES AND MESSAGE IMPACTS – FIX 5.0 PROTOCOL

The following table summarises the new fields to be added to the order entry interfaces and the respective rules for MiFID II requirements in FIX 5.0 protocol:

FIX Repeating Group	Field name	FIX Tag	Format	Length (FIX)	Possible Values for MiFID II purposes	Description	Requirement for MiFID II fields
Parties	PartyID	448	String	11	Numerical between $-2^{31}+1$ and $2^{31}-1$, left-aligned.	MiFID II short code, Execution within firm, identifier of the trader or algorithm responsible for the execution making.	Mandatory: ExecutionWithinFirmShortCode
	PartyIDSource	447	Char	1	P = Short Code Identifier	Identifies the type of code provided for PartyID (448)	Mandatory if NoPartyID ¹ >=1
	PartyRole	452	Int	3	1 = Executing Firm 3 = Client ID 12 = Executing Trader	Identifies the type of role of the PartyID (448)	Mandatory if NoPartyID >=1
	PartyRoleQualifier	2376	Int	2	22 = Algorithm 23 = Firm or legal entity 24 = Natural Person	Used to further qualify the value of the PartyRole (452)	Mandatory if NoPartyID >=1
NestedParties	NestedPartyID	524	String	11	Numerical between -2^{31} and $2^{31}-1$, left-aligned.	MiFID II short code reflecting either: 1. ClientIdentificationShortCode - the client of the member or participant of the trading venue. In case there is DEA, the code of the DEA user shall be used. 2. InvestmentDecisionWithinFirmShortCode - the trader or algorithm responsible for the investment decision. 3. NonExecuting BrokerShortCode - identifier of the non-executing broker	Mandatory if NoNestedPartyIDs ² (539) >=1 NoNestedPartyIDs (539) should be >= 1 in following cases: An instance is mandatory with representation of data for ClientIdentificationShortCode if AccountCode is Client or in case there is a DEA An instance is mandatory with representation of data for InvestmentDecisionWithinFirmShortCode

¹ Used to indicate number of PartyID (448), PartyIDSource (447), and PartyRole (452) entries for the Parties repeating group. Data type: NumInGroup

² Used to indicate Number of NestedPartyID (524), NestedPartyIDSource (525), and NestedPartyRole (538) entries for the NestedParties repeating group. Data type: NumInGroup

EURONEXT MIFID II TECHNICAL NOTE – CASH

							if AccountCode is Liquidity Provider, Related Party or House, OR in case investment decision maker is an Algorithm.
	NestedPartyIDSource	525	Char	1	P = Short Code Identifier	Identifies the type of code provided for NestedPartyID (524)	Mandatory if NoNestedPartyIDs (539) >=1
	NestedPartyRole	538	Int	3	3 = Client ID 26 = Correspondent Broker 122 = Investment Decision Maker ³	Identifies the type of role of the NestedPartyID (524)	Mandatory if NoNestedPartyIDs (539) >=1
	NestedPartyRoleQualifier	2384	Int	2	22 = Algorithm 23 = Firm or legal entity 24 = Natural Person	Used to further qualify the value of the NestedPartyRole (538)	Mandatory if NoNestedPartyIDs (539) >=1
OrderAttribute Grp	OrderAttributeType	2594	Int	1	0 = Aggregated order 1 = Pending allocation 3 = Risk reduction order	MiFID II indicator reflecting whether an order is Aggregated, Pending Allocation or Risk Reduction (latter only in case of Commodity underlyings)	Mandatory if NoOrderAttributes ⁴ (2593)>0
	OrderAttributeValue	2595	String	1	Y = Yes	MiFID II indicator to identify whether an OrderAttributeType applies	Mandatory if NoOrderAttributes (2593)>0
	OrderOrigination	1724	Int	1	5 = Order received from a direct access or sponsored access customer	MiFID II indicator to identify whether the order was submitted via a Direct Electronic Access (DEA).	Mandatory in case of DEA access

³ Please note, this field contains other value in FIX specifications for provision of Clearing data

⁴ Used to indicate number of order attribute entries for the OrderAttributeGrp repeating group. Data type: NumInGroup

EURONEXT MIFID II TECHNICAL NOTE – CASH

	LastCapacity	29	Char	1	<p>1 = Dealing on own account (DEAL)</p> <p>2 = Matched principal (MTCH)</p> <p>3 = Any other capacity (AOTC)</p>	<p>MiFID II field that indicates whether the order submission results from trading as matched principal, on own account or as any other capacity</p>	Mandatory
--	--------------	----	------	---	---	--	-----------

EURONEXT MIFID II TECHNICAL NOTE – CASH

The following table summarizes the FIX 5.0 message implementation of the new fields for the Order Entry messages in Optiq Cash:

FIX repeating groups →			Party D (448)	Party DSource (447)	Party Role (452)	Party RoleQualifier (2376)	NestedParty ID (524)	NestedParty IDSource (525)	NestedParty Role (538)	NestedParty RoleQualifier (2384)	Order AttributeType (2594)	Order AttributeValue (2595)	Order Origination (1724)	LastCapacity (29)
FIX messages / fields	Message routing Client ↔ OEG	Message usage												
NewOrderSingle (D)	→	Used by the clients to create a new order.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ExecutionReport (8)	←	Sent by the trading engine in response to (a.o.): NewOrderSingle (D), QuoteRequest (R), OrderCancelReplaceRequest (G) etc	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MassQuote (i)	→	Used by Liquidity Providers to send several quotes (bid and ask orders) on several instruments in one unique message.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MassQuoteAck (b)	←	Used to respond to the MassQuote (i) message sent by Liquidity Providers when no error is detected in any non-repeated field of the MassQuote (i) request	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	No
OrderCancelRequest (F)	→	Used to requests the cancellation of the entire remaining quantity of an existing order.	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	No
OrderCancelReplaceRequest (G)	→	Used in changing any valid attribute of an open order and confirming a new order that can be executed upon entry, but whose matching price hits a collar (in that case, the remaining quantity of that order is rejected).	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No

EURONEXT MIFID II TECHNICAL NOTE – CASH

OwnershipRequest (U18)	→	Used by the clients to change the ownership of an active order from an OE Session to another OE Session belonging to the same Firm.	Yes	Yes	Yes	Yes	No							
QuoteRequest (R)	→	Used by the clients to indicate that they have an interest on the specified instrument.	Yes	Yes	Yes	Yes	No							
UserNotification (CB)	←	Used to notify clients if they have been suspended/ killed or if their suspension/kill has been cleared.	Yes	Yes	Yes	Yes	No							
PriceInput (UI)	→	Used to inject prices into the trading engine or to update the reference price of an instrument with either a valuation price or an external price from a primary market.	Yes	Yes	Yes	Yes	No							
LiquidityProviderCommand (UZ)	→	Message is used by a W&C Liquidity Provider	Yes	Yes	Yes	Yes	No							
OrderMassStatusRequest (AF)	→	Used by the clients to request details on the target order (OrderID)	Yes	Yes	Yes	Yes	No							
OrderMassCancelRequest (q)	→	Used to request the cancellation of the entire remaining quantity of all active orders matching the specified criteria	Yes	Yes	Yes	Yes	No							

Please refer to Optiq OEG FIX 5.0 client specifications for a complete description of the message impacts

TREATMENT OF CONFIDENTIAL INFORMATION

To avoid sensitive information circulating in the non-encrypted order entry interface, Euronext will deploy only short codes in the order entry interface. Members are required to provide a dedicated file with mapping between short codes used at the order entry and long codes, via a securitised customer web portal, allowing for reconciliation between the orders and the private information, safely post order injection. Personal data collected by Euronext is stored and processed in accordance with the provisions of the Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data, and applicable local law.

DISCLAIMER

The purpose of this document is to provide general information only, and in no way does it provide a legal interpretation of MiFID legislation. Nor does the information provided constitute legal or professional advice for any particular situation. You should take independent advice in respect of issues that are of concern to you. Euronext does not assume any responsibility for any errors or omissions contained herein. Euronext accepts no liability for decisions taken by any party, based on this information. This document and any contents thereof, as well as any prior or subsequent information exchanged with Euronext in relation to the subject matter of this document, are confidential and for the sole attention of the intended recipient. All data as of June 2017.

Euronext refers to Euronext N.V. and its affiliates. Information regarding trademarks and intellectual property rights of Euronext is located at www.euronext.com/terms-use.